

REMARKS

Claims 1-20 are pending in the present application. Claims 1, 8, 14, 17, and 18 are independent. Claims 1, 8, and 14 have been amended. Claims 17-20 have been added.

Embodiment of the Present Invention

To aid the Examiner's understanding of the present invention, an embodiment of the present invention will be briefly described.

In an embodiment of the present invention as disclosed, *inter alia*, on page 3 of the specification, the sense amplifier, once operational, generates an output voltage indicating the state of the fuse being sensed. However, the time for the sense amplifier to complete the sensing operation and settle upon an output voltage value varies depending upon numerous factors. Furthermore, because one of the output voltage states of the sense amplifier is the same as the output voltage of the sense amplifier in the powered down state, the point when the sense amplifier has settled on an output voltage can not necessarily be detected from the output voltage of the sense amplifier. However, the validation circuit tracks or mimics the operation of the sense amplifier, but is structured such that the output voltage produced thereby transitions as the sense amplifier is settling on an output voltage, regardless of the a state of the fuse. As such, the validation circuit detects and indicates when the sense amplifier has sufficiently settled on an output voltage indicating the state of the fuse.

35 U.S.C. § 112 rejections

Claims 8-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses.

Applicant asserts that the rejection is now moot given the amendment to claim 8. Claims 9-13 are allowable at least because they depend from claim 8.

35 U.S.C. § 102 Rejections

Claims 1-5, 8-11, and 14-16 are rejected under 35 U.S.C. § 102(b) as being anticipated by Starnes et al. (U.S. Patent No. 6,157,583). Applicant respectfully traverses.

With regard to claims 1 and 8, Applicant asserts that Starnes et al., as suggested by the Examiner, fail to disclose a validation circuit indicating when the sense amplifier output is valid. The Examiner asserts on page 3 of the Office Action that Starnes et al. disclose an inverter 258 that tracks operation of the sense amplifier such that the inverter 258 indicates when the sense amplifier has sufficiently settled on sense condition of the buried fuse. However, Applicants disagree that inverter 258 can be considered a validation circuit because inverter 258 conveys the state of the fuse state detect stage 202, whether or not the fuse state detect stage 202 is valid or invalid. Referring to Fig. 2 of Starnes et al. and Col. 6, lines 10-24, an input of a first inverter 258 receives the output of amplifier stage 204. An output of inverter 258 is coupled to an input of a second inverter 260. An output of an inverter 260 generates the output of fuses and detect circuits 124, FUSE STATE. The output of inverter 260 is coupled to the input of inverter 258 via a

pass gate 262. The n-type device in pass gate 262 receives the control signal LATCH. The p-type device in pass gate 262 is coupled to an output of a third inverter 264. An input of inverter 264 also receives the control signal LATCH. When the control signal LATCH is de-asserted, pass gate 262 is non-conducting and latch stage 206 passes its input to its output. When the control signal LATCH is asserted, pass gate 262 is conducting, thereby coupling the output of latch stage 206 to its input. As disclosed by Starnes et al. above, state information is passing through inverter 258 whether or not the LATCH is asserted or de-asserted. Therefore, the inverter 258 of Starnes et al. as suggested by the Examiner, can not disclose or suggest a validation circuit indicating when the sense amplifier output is valid as recited in claims 1 and 8. Starnes et al. fail to disclose each and every element of claims 1 and 8. Accordingly, Applicant respectfully requests that the 35 U.S.C. § 102 rejection of claims 1 and 8 be withdrawn.

With regard to claim 14, claim 14 recites a tracking circuit that indicates when the sense amplifier has sufficiently settled. The Examiner in the rejection of claim 14 again argues that inverter 258 also indicates when the sense amplifier has sufficiently settled. However, Applicants disagree for the same reasons as shown above in the traverse of claims 1 and 8. Accordingly, Applicant respectfully requests that the art ground rejection be withdrawn.

With regard to claims 2-5, 9-11, 15 and 16, Applicant asserts that they are allowable at least because they depend from one of claims 1, 8, and 14.

35 U.S.C. § 103 Rejections

Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Starnes et al.. Applicant respectfully traverses.

With regard to claims 7 and 13, Applicant asserts that claims 7 and 13 are allowable for their own merits and at least because they depend from one of independent claims 1 and 8 which the Applicant believes have been shown to be allowable over Starnes et al.

Allowable Subject Matter

Applicant thanks the Examiner for indicating that claims 6 and 12 are allowed. Applicant has not put claims 6 and 12 into independent form because they depend from one of claims 1 and 8 which Applicant believes have been shown to be allowable.

New Claims

Further, Applicant has added new claim 17 which includes elements of claim 6. Applicant asserts that claim 17 is allowable based on the Examiner's designation of claim 6 as allowable subject matter. Support for new claims 18-20 can be found, *inter alia*, on page 3 of the specification and Fig. 1.

CONCLUSION

In view of the foregoing, Applicant submits that claims 1-17 are patentable, and that the application as a whole is in condition for allowance. Early and favorable notice to that effect is respectfully solicited.

In the event that any matters remain at issue in the application, the Examiner is invited to contact the undersigned at (703) 668-8000 in the Northern Virginia area, for the purpose of a telephonic interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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